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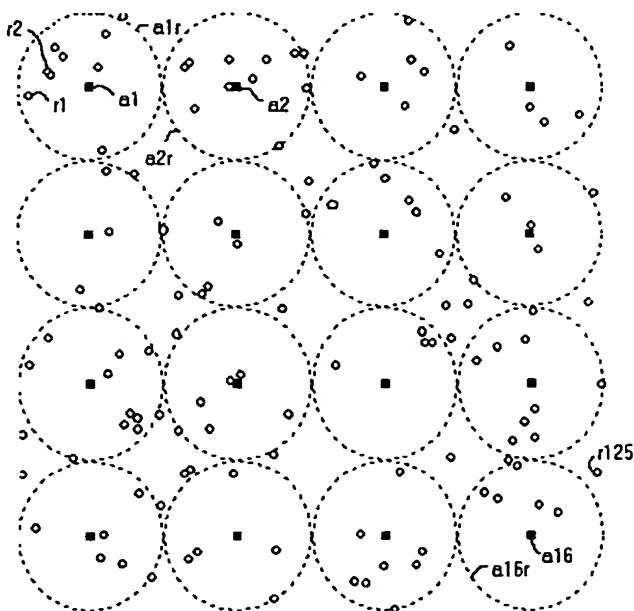
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(54) Title: METHOD AND APPARATUS FOR LOCATING DEVICES

(57) Abstract: A method of obtaining positional information about individual wireless devices a1-a16, r1-r125 within a wireless ad-hoc network including a plurality of position determining devices r1-r125 which include means for estimating the distance between themselves and other similar devices which are within range. The method includes the steps of: calculating the hypothetical distance between a respective node's estimated position and the estimated position of each of its neighbouring devices whose broadcast estimated position has been received and whose distance from the respective node has been measured comparing the calculated hypothetical distance with the measured distance; modifying the respective node's estimated position so as to reduce an error function dependent upon the difference between the hypothetical and measured distances and periodically resetting the respective node's estimated location to a new position in a manner which does not seek to reduce the error function within a single iteration so as to avoid the location from getting stuck in a local minimum value of the error function.

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